

AMENDMENTS TO THE SPECIFICATION:

On page 1, line 1, insert the following new paragraph:

8E - (now U.S. 6,822,137)
-- [001] This is a continuation of Application No. 09/244,130, filed February 4, 1999, which is a division of Application No. 09/119,024, filed July 20, 1998 (now U.S. 5,948,678), which is a continuation of Application No. 08/336,241, filed November 7, 1994 (now U.S. 5,792,632), which is a continuation-in-part of Application No. 07/971,160, filed November 5, 1992 (now U.S. 5,474,896), which is a continuation-in-part of Application No. 07/879,689, filed May 5, 1992 (abandoned), all of which are incorporated herein by reference. --

On page 4, replace the first full paragraph with the following amended paragraph:

-- The two-site specific endonucleases, I-SceI (Jacquier and Dujon 1985) and I-SceII (Delahodde et al. 1989; Wenzlau et al. 1989), that are responsible for intron mobility in mitochondria, initiate a gene conversion that resembles the HO-induced conversion (see Dujon 1989 for review). I-SceI, which is encoded by the optional intron Sc LSU.1 of the 21S rRNA gene, initiates a double-strand break at the intron insertion site (Macreadie et al. 1985; Dujon et al. 1985 (ref. 7 and ref. A4); Colleaux et al. 1986 (ref. 8)). The recognition site of I-SceI extends over an 18 bp non-symmetrical sequence (Colleaux et al. 1988). Although the two proteins are not obviously related by their structure (HO is 586 amino acids long while I-SceI is 235 amino acids long), they both generate 4 bp staggered cuts with 3'OH overhangs within their respective recognition sites. It has been found that a mitochondrial intron-encoded endonuclease, transcribed in the nucleus and translated in the cytoplasm, generates a double-strand break at a nuclear site. The repair events induced by I-SceI are identical to those initiated by HO. --

At the bottom of page 5, after the last line, add the following new paragraph:

-- SEQ ID NO:1 (DNA sequence)
SEQ ID NO:2 (Amino acid sequence) --

On pages 7-16, replace the entire section entitled "BRIEF DESCRIPTION OF THE DRAWINGS" with the following amended section: